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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,448	01/12/2004	Richard W. Adkisson	200313791-1	2136

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
SCHNEIDER, JOSHUA D	
ART UNIT	**PAPER NUMBER**
2182	

MAIL DATE	DELIVERY MODE
09/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/756,448	ADKISSON ET AL.	
	Examiner	Art Unit	
	Joshua D. Schneider	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *5-10,15 and 16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 11-14, and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/22/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 4, 11, and 13, have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant has again argued that Sprangle solves an unrelated problem in an unrelated way. This is not true, as applicant is only now phrasing the question in way that makes Sprangle appear to be unrelated. Both Sprangle and the current claims relate to solving the problem of optimizing a data link, though Sprangle teaches optimizing before receiving data and the applicant after, the subject matter is clearly related to solving the same problem. However, a new reference is now presented to eliminate this argument.

4. Applicant also argues that Giaimo does not teach disclose or suggest receiving data from a source from the group consisting of a link input and a memory. It is unclear what this argument is based on as it consists of only a conclusory statement. While this is a newly added limitation, Giaimo clearly teaches a data source that is a link input, as this term is extremely broad in nature, and is not found to have any narrowed definition in the specification. Also, for

claim 13, this limitation is not found in the claim body, but only in the preamble of the claim. The limitation is therefore not limiting, and can be interpreted as only an intended use. The Giaimo rejection is therefore maintained, although an alternate rejection is now added in order to further prosecution.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4, 11-14, and 17-19 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent Application Publication 2004/025809 to Stephens.

7. With regards to claims 1, 11, and 13, Stephens teaches selecting a system performance parameter to be optimized for each channel or source (paragraphs 29-31) from a group consisting of latency, bandwidth, and safety (through put is bandwidth and delay is latency, paragraph 33), receiving at the data input a sequence of discrete data words in transit to the data output from a source from the group consisting of a link input and a memory (wireless link input, paragraphs 23), determining an optimum mode of delivery of the data words to the data output so as to optimize the selected performance parameter (paragraphs 37-40), and delivering the data words from the data input to the data output in the determined optimum mode (paragraph 41).

8. With regards to claim 2, Stephens teaches determining the optimum mode of delivery includes determining at least one of an optimum time and sequence of delivery of the data words (optimizing delay time, paragraphs 33 and 39).

9. With regards to claim 4, Stephens teaches selecting a system performance parameter to be optimized from a group consisting of latency, bandwidth, and safety (through put is bandwidth and delay is latency, paragraph 33), receiving at the data input a sequence of discrete data words in transit to the data output from a source from the group consisting of a link input and a memory (wireless link input, paragraphs 23), determining an optimum sequence and time of the delivery of the data words to the data output so as to optimize the selected performance parameter (minimizing packet delay, paragraphs 37-40), and delivering the data words from the data input to the data output in the determined optimum sequence and time (paragraph 41).

10. With regards to claims 12 and 14, Stephens teaches the mode of delivery can be different for at least two of the plurality of data channels (paragraphs 30 and 33).

11. With regards to claim 17, Stephens teaches receiving at the data input a sequence of discrete data words (paragraph 36), and delivering each data word to the data output without regard to sequence and as soon as possible after the data word is received at the data input (paragraph 39), whereby latency is minimized (delay reduced, paragraphs 33 and 39).

12. With regards to claim 18, Stephens teaches receiving at the data input a sequence of discrete data words (paragraph 36), holding at least one of the data words first received at the data input in storage until additional data words comprising the data packet are received at the data input (paragraph 38), delivering the data words from storage to the data output as the additional data words comprising the data packet are received at the data input with minimal

time gaps between said data words (data burst, paragraph 38), and delivering the additional data words substantially directly from the data input to the data output as soon as possible after the additional data words are received at the data input, whereby bandwidth is maximized (throughput maximized, paragraphs 33 and 38).

13. With regards to claim 19, Stephens teaches receiving at the data input a sequence of discrete data words (paragraph 36), holding each of the data words received in storage until all data words comprising the data packet have been received (paragraph 38), and delivering the data words from storage to the data output in the preselected sequence and with substantially no time gaps between the data words, whereby safety is maximized (delivered without gaps in order the buffer is filled, paragraph 38).

14. Claims 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2004/0090924 to Giaimo et al.

15. With regards to claim 11, Giaimo teaches selecting a system performance parameter to be optimized for each channel (paragraph 8), receiving at the data input of each channel a sequence of discrete data words (paragraphs 20-25), determining an optimum mode of delivery of the data words to the data output so as to optimize the selected performance parameter for the associated channel (paragraph 8), and delivering the data words from the data input to the data output in the determined optimum mode for each channel (paragraphs 20-25).

16. With regards to claim 12, Giaimo teaches the mode of delivery is different for at least two of the plurality of data channels (paragraphs 25-26).

17. With regards to claim 13, Giaimo teaches selecting a system performance parameter to be optimized for each source (paragraph 8), receiving at the data input a sequence of discrete data

words from each source (paragraphs 20-25), determining an optimum mode of delivery of the data words to the data output so as to optimize the selected performance parameter for the associated source (paragraph 8), and delivering the data words from the data input to the data output in the determined optimum mode for each source (paragraphs 20-25).

18. With regards to claim 14, Giaimo teaches the mode of delivery is different for at least two of the plurality of data sources (paragraphs 25-26).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2004/025809 to Stephens in further view of U.S. Patent Application Publication 2004/0085956 to Moriarty et al.

21. With regards to claim 3, Stephens fails to teach, but Moriarty teaches reordering the data words into a desired sequence before delivering the data words from the data input to the data output (Fig. 7, element 720, paragraphs 83). It would have been obvious to one of ordinary skill in the art to combine the memory bypass of Moriarty with the memory controller of Stephens in order to minimize retransmissions.

22. With regards to claim 20, Stephens teaches a data input for receiving a sequence of discrete data words (paragraph 36), a data output to which data are delivered (paragraph 41).

Stephens fails to teach, but Moriarty teaches and at least one data storage element intermediate the data input and data output for storing individual data words for a determined time before delivery to the data output (Fig. 7, element 720), and at least one path for selectably delivering data to the data output by bypassing said data storage element (Fig. 7, element 775, bypass reordering to output queue). It would have been obvious to one of ordinary skill in the art to combine the memory bypass of Moriarty with the memory controller of Stephens in order to minimize delivery latency.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M, T, Th, and F, 9-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JDS

KIM HUYNH
SUPERVISORY PATENT EXAMINER

9/4/07